

FAQs in Flux Cored Arc Welding (FCAW)	
Sr. No.	Questions & Answers
1	What is T-1 and T-5 classification in flux cored wire?
	T-1 : Rutile based powder mix cored FCAW wire T-5 : Basic minerals based powder mix cored FCAW wire
2	What are the classifications for self-shielded flux cold wires?
	T-8
3	What are the limitations of T-5 type flux code wires?
	<ol style="list-style-type: none"> 1. Limited weld position capability 2. Excess weld spatter 3. Difficult slag removal compared to T-1 type wires 4. More convex type beads
4	How is the flux cored wire classified?
	<p>FCAW wires are classified based on SFA 5.20: E71T-1.</p> <p>E: Electrode.</p> <p>7: Indicates the minimum tensile strength of the weld metal, which is 70,000 psi.</p> <p>1: is for positional designator – all position.</p> <p>T: Indicates a tubular flux-cored wire.</p> <p>1: is usability characteristics.</p>
5	What is the positional compatibility of flux cored wire? can it be welded in overhead position?
	Yes, T1 class wires are designated to weld in all position.
6	What is the gas consumption per kg of weld metal deposit in case of flux cold wire?
	0.4 to 0.5kg/kg of weld metal deposit.
7	What is the length of 1Kg of flux cold wire?
	It depend on actual wire diameter. 1kg wire is 135-140meter long.
8	Whether flux cored wire picks up moisture if kept open in atmosphere?
	Yes. Wire should not be left open without protective packing.
9	What are the best mechanical properties one can get with E71T-1 flux cored wire?
	70-80ksi strength with -40°C CVN property.
10	What are the prior precautions suggested for welding with flux cored wire?
	Plate condition, joint fit up, gas flow rate, shielding gas heater, polarity, etc.
11	What are the common defects in flux cored wire welding?
	Porosity, worm marks, cracks, convexity of weld bead, slag inclusions, etc.
12	What is preheating and inter-pass and its importance in flux cored wire welding?
	Heating the job before welding is called preheating. It depends on thickness of job and grade of material. It is calculated based of carbon equivalent & thickness.
13	What are the common grades of flux cored wires used in the industry?
	E71T-1 & E71T-5
14	What are the advantages of flux cored wire over solid wire?
	<p>Better positional welding property</p> <p>Less convexity of weld bead</p> <p>Wider Range of Materials composition</p> <p>Higher effective weight/ length of weld metal</p> <p>Improved Penetration and Fusion</p> <p>For self-shielded fcaw wires No Need for External Shielding Gas</p>
15	Can flux cored wire be welded with pure Argon gas?
	Generally, not recommended. It may lead to inadequate fusion and porosity.
16	Can the same Flux cored wire which is used with carbon dioxide gas can be used with Argon CO ₂ gas mixture?

	It depends on manufacturers recommendation.
17	What happens if the gas flow is extremely low or extremely high?
	If low, then porosity may form. For higher flow rate, spatter formation may increase due to more turbulence in the weld pool.
18	What is the convexity of weld bead of flux cored Wire? How is it measured? what is its acceptance criteria?
	Convexity is the maximum distance between the face of weld and the line joining the weld toes. It is given in respective AWS standard, depends on electrode diameter.